Anti-CD1a Antibody [JM21-33]

ET1705-17

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 37 kDa
Clone number:	JM21-33

Description: CD1a (Cluster of Differentiation 1a) is a human protein encoded by the CD1A gene. This gene encodes a member of the CD1 family of transmembrane glycoproteins, which are structurally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin. The CD1 proteins mediate the presentation of primarily lipid and glycolipid antigens of self or microbial origin to T cells. The human genome contains five CD1 family genes organized in a cluster on chromosome 1. The CD1 family members are thought to differ in their cellular localization and specificity for particular lipid ligands. The protein encoded by this gene localizes to the plasma membrane and to recycling vesicles of the early endocytic system. Alternatively spliced transcript variants have been observed, but their biological validity has not been determined. Transcript levels of the CD1A gene are upregulated in the lung parenchyma of smokers.

Immunogen: Synthetic peptide within Human CD1a aa 16-65 / 327.

Positive control: Jurkat cell lysate, MOLT-4 cell lysate, human thymoma tissue, human thymus tissue, human skin tissue, human tonsil tissue.

Subcellular location: Cell membrane. Endosome membrane.

Database links: SwissProt: P06126 Human

Recommended Dilutions:

WB	1:2,000
IHC-P	1:200-1:500
IF-Tissue	1:2,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

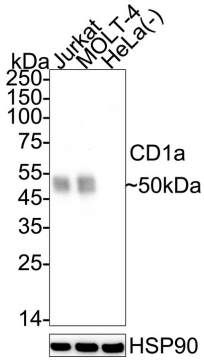

Fig1: Western blot analysis of CD1a on different lysates with Rabbit anti-CD1a antibody (ET1705-17) at 1/2,000 dilution.

Lane 1: Jurkat cell lysate
Lane 2: MOLT-4 cell lysate
Lane 3: HeLa cell lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 37 kDa
Observed band size: 50 kDa

Exposure time: 3 minutes; ECL: K1802;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1705-17) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

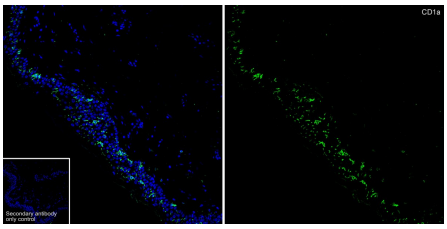

Fig2: Application: IF-Tissue

Species: Human

Site: skin

Sample: Paraffin-embedded section

Antibody concentration: 1/2,000

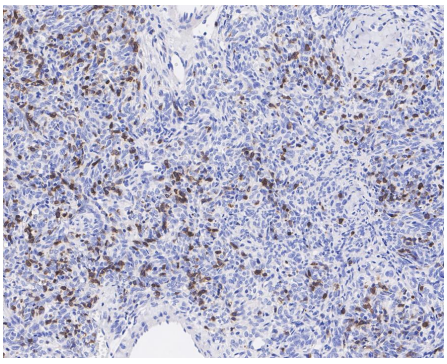

Fig3: Immunohistochemical analysis of paraffin-embedded human thymoma tissue with Rabbit anti-CD1a antibody (ET1705-17) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-17) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

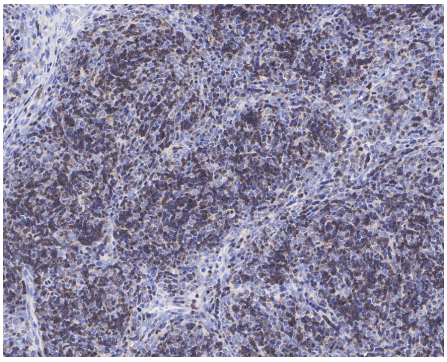

Fig4: Immunohistochemical analysis of paraffin-embedded human thymus tissue with Rabbit anti-CD1a antibody (ET1705-17) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-17) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

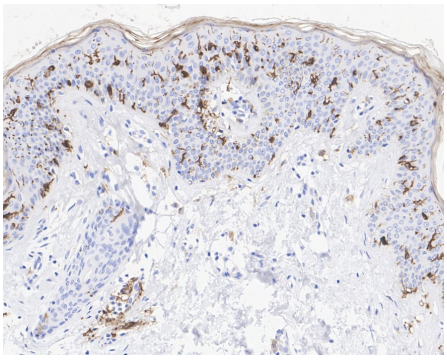

Fig5: Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-CD1a antibody (ET1705-17) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-17) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

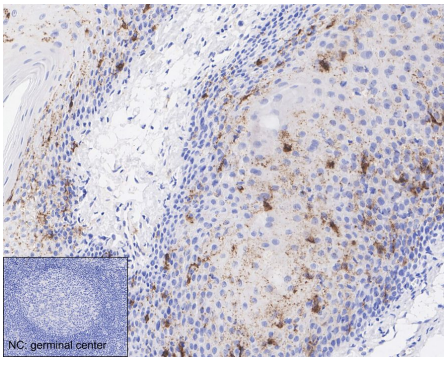

Fig6: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CD1a antibody (ET1705-17) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-17) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

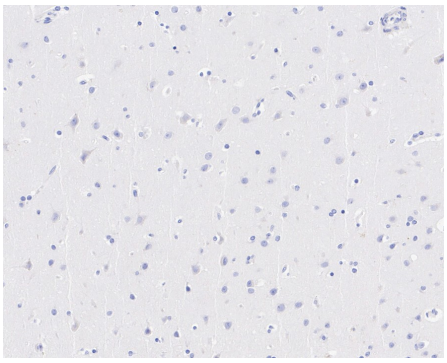

Fig7: Immunohistochemical analysis of paraffin-embedded human brain tissue (negative) with Rabbit anti-CD1a antibody (ET1705-17) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-17) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Nguyen N et al. Tumor infiltrating lymphocytes and survival in patients with head and neck squamous cell carcinoma. Head Neck 38:1074-84 (2016).
2. Tam J et al. Reconstitution of full-thickness skin by microcolumn grafting. J Tissue Eng Regen Med doi: 10.1002/term.2174 (2016).